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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/650,032	08/28/2003	Dmitri Botvich	P69104US0	6951
25943 7590 04/27/2007 SCHWABE, WILLIAMSON & WYATT, P.C. PACWEST CENTER, SUITE 1900 1211 SW FIFTH AVENUE PORTLAND, OR 97204			EXAMINER PHAN, MAN U	
			ART UNIT	PAPER NUMBER
			2616	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		04/27/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/650,032	Applicant(s) BOTVICH, DMITRI	
	Examiner Man Phan	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-71 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-71 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>6/25/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The application of Botvich for the "Method and system for bandwidth estimation" filed 08/28/2003 has been examined. This application is a continuation in part of PCT/IE01/00030 International Filing Date: 02/28/2001. Claims 1-71 are pending in the application.

2. The applicant should use this period for response to thoroughly and very closely proof read and review the whole of the application for correct correlation between reference numerals in the textual portion of the Specification and Drawings along with any minor spelling errors, general typographical errors, accuracy, assurance of proper use for Trademarks TM, and other legal symbols @, where required, and clarity of meaning in the Specification, Drawings, and specifically the claims (i.e., provide proper antecedent basis for "the" and "said" within each claim). Minor typographical errors could render a Patent unenforceable and so the applicant is strongly encouraged to aid in this endeavor.

Specification

3. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 250 words. It is important that the abstract not exceed 250 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

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The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The Abstract of the disclosure is objected to because it contains the legal phraseology "means" (line 14). Correction is required.

Claim Rejections - 35 USC ' 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 23, 42, 56, 65 recite the limitation "the effective bandwidth requirement" in lines 1.

Claims 1, 23, 42, 56 recite the limitation "the traffic flow on-line" in line 23 [item (a)], "the aggregate traffic flow on-line" in line 31 [item (a)]. There is insufficient antecedent basis for these limitations in the claims.

Claims 56, 65 recite the limitation "the mean rate of flow" in line 19 [item (b)], "the closest stored identifier" in line 35 [item (g)], "the appropriate relationship" in line 3 [item (h)]. There is insufficient antecedent basis for these limitations in the claims.

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

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6. Claims 17-22, 36-41 and 54-55, 62-64, 69-71 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter, specifically, as directed to “computer program product” or “a software routine”. The claimed “computer program” product or “software routine” of claims 17-22, 36-41 and 54-55, 62-64, 69-71 is non-statutory as at no time in the claim does applicant define the software routine. A computer program per se is not in one of the statutory categories. A computer program must be claimed in combination with an appropriate computer readable medium so that the program is capable of producing a useful, concrete and tangible result when used in a computer system

Claims 17-22, 36-41 and 54-55, 62-64, 69-71 are direct to “a computer program” product which is not supported by either a specific asserted utility or a well established utility. Claims 17-22, 36-41 and 54-55, 62-64, 69-71 merely defines “*a computer program product*” or “*data record for storing instructions*”, and is not directed to statutory subject matter. The claims appear to be nothing more than a signal not tangibly embodied in a manner so as to be executable and thus non-statutory for failing to be in one of the categories of invention. It’s not tangibly embodies and non-functional descriptive material - data per se. Therefore, what applicant is attempting to claim as a computer program product or data record as is known in the art. The claim is actually drawn to non-functional descriptive material stored on a machine readable medium. The description given in the specification does not cure this problem. In practical terms, claims define non-statutory processes if they simply manipulate abstract ideas, e.g., a bid or a bubble hierarchy, without some claimed practical application, *Schrader*, 22 F.3d at 293-94, 30 USPQ2d at 1458-59; *Warmerdam*, 33 F.3d at 1360, 31 USPQ2d at 1759.

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7. Claims 17-22, 36-41 and 54-55, 62-64, 69-71 are also rejected under 35 U.S.C. 112, first paragraph. Specifically, since the claimed invention is not supported by either a specific asserted utility or a well established utility for the reasons set forth above, one skilled in the art clearly would not know how to use the claimed invention.

It's noted that, In the prior art, connection admission control is fairly simple, based on the concept of effective bandwidths. This generally means that each individual connection is assigned a bandwidth value that represents the "effective" resource usage of the connection during its lifetime. When a new connection arrives to the node, the effective bandwidth of the connection is estimated based on factors such as the traffic characteristics and the QoS requirements. Subsequently, the Connection admission control (CAC) algorithm checks whether the sum of effective bandwidths of the admitted connections and the new connection exceeds the link capacity or not. The algorithm is so simple that the CAC decisions can be taken on-line. This approach thus satisfies the requirement on limited computational complexity.

Allowable Subject Matter

8. Claims 1-16, 23-35, 42-53, 56-61 and 65-68 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

9. The following is an examiner's statement of reasons for the indication of allowable subject matter: The closest prior art of record fails to disclose or suggest a system and method for estimating the effectively bandwidth requirement at a node in a communications network comprising: (a) at least one computer connected to the node; (b) a database of relationships

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comprising, for a previously sampled-traffic flow, an identifier for the traffic flow, an estimate of the mean rate of flow of said identified traffic flow, and an estimated effective bandwidth requirement for the said identified traffic flows, together with a measure of the relationship between the mean rate of flow and the effective bandwidth requirement; (c) means for sampling traffic on-line at the node; (d) means for allocating an identifier to the traffic on-line at the node; (e) means for estimating the mean rate of flow of the traffic on-line; (f) means for comparing the identifier of the traffic on-line with the identifiers in the database; (g) means for identifying the closest stored identifier in the database with that of the traffic on-line; and (h) means for extracting the appropriate relationship from the database and estimating the effective bandwidth requirement of the traffic flow on-line, as specifically recited in the claims.

10. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The Horlin et al. (US#2004/0042400) is cited to show the connection admission control based on bandwidth and buffer usage.

The Nagarajan et al. (US#6,683,852) is cited to show the call admission control methods and apparatus for improving route selection in packet networks.

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The Malomsoky et al. (US#2005/0163103) is cited to show the connection admission control in packet-oriented, multi service networks.

The Heiner et al. (US#2004/0037231) is cited to show the bandwidth estimation.

The Moore (US#2005/0226249) is cited to show the method and arrangement for dynamic allocation of network resources.

The Kataria et al. (US#6,385,172) is cited to show the administrative weight assignment for enhanced network operation.

The Kilkki (US#6,081,505) is cited to show the cell scheduling system and method for networks nodes.

The Ramamurthy et al. (US#6,046,981) cited how the multi class connection admission control, method for ATM switches.

The Kilkki et al. (US#6,041,039) is cited to show a system and method for determining network bandwidth availability using priority level feedback.

The Worster (US#6,028,840) is cited to show a method and apparatus for connection admission control of variable bit rate traffic in ATM switch.

The Chang et al. (US#5,812,526) is cited to show a traffic control mechanism in ATM communications network.

The Zavalkovsky et al. (US#7,096,260) is cited to show a marking network data packets with differentiated services codepoints based on network load.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Phan whose telephone number is (571) 272-3149. The

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examiner can normally be reached on Mon - Fri from 6:00 to 3:00.

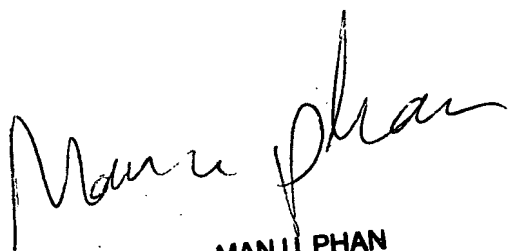
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin, can be reached on (571) 272-3134. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2600.

13. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at toll free 1-866-217-9197.

Mphan

04/24/2007.


MAN U. PHAN
PRIMARY EXAMINER